



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RB23005022
Job Sheet 196858



Part No: RB23005022

Job Qty: 1 pcs

Part Name: Inner Power Turbine Shaft



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/24/19

Job Tracking No:

Due Date: 7/29/19

Created By: Kimberley Guerin

Type: Stock

Description:

Note: DWG RB23005022 Rev 0 IPP Rev. A 19.06.18 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup	Run	Workcenter / Supplier	Lead Time	
100	Purchasing	1 pcs		7/29/19	0.00	0.00	Purchasing - 1		B AUG 0 2 2019
							Purchasing - 2		
							Purchasing - 3		
110	Packaging 2-1 - Receive - B4B	1 pcs		7/29/19	0.00	0.00	Packaging 2 - 1 - B4B		B AUG 0 2 2019
							Packaging 2 - 2 - B4B		
							Packaging 2 - 3 - B4B		
							Packaging 2 - 5 - B4B		
							Packaging 2 - 4 - B4B		
							Packaging 2 - 6 - B4B		
							Packaging 2 - 7 - B4B		
							Packaging 2 - 8 - B4B		
							Packaging 2 - 9 - B4B		
							Packaging 2 - 10 - B4B		
							Packaging 2 - 11 - B4B		
							Packaging 2 - 12 - B4B		
							Packaging 2 - 13 - B4B		
							Packaging 2 - 14 - B4B		
							Packaging 2 - 15 - B4B		
							Packaging 2 - 16 - B4B		
							Packaging 2 - 17 - B4B		
							Packaging 2 - 18 - B4B		
							Packaging 2 - 19 - B4B		
							Packaging 2 - 20 - B4B		
							Packaging 2 - 21 - B4B		
							Packaging 2 - 22 - B4B		
							Packaging 2 - 23 - B4B		
							Packaging 2 - 24 - B4B		
							Packaging 2 - 25 - B4B		
							Packaging 2 - 26 - B4B		
							Packaging 2 - 27 - B4B		
							Packaging 2 - 28 - B4B		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S202638



Part: RB23005022

Job No: 196858

Serial No/Batch: S202638

Revision: 0

Inspector:

Exp Date:

Instructions:

Date: 06/02/19

Plex 6/24/19 9:09 AM Dart.Guerin.Kimberley

				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
120 QC 6	1 pcs	7/29/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	DAS 61 9-89
				QC 6 - 40	
130 Packaging 3-1 - Stock - B4B	1 pcs	7/29/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - FG	1 pcs	7/29/19	0.00 0.00	QC 21 - FG - 21	
				QC 21 - FG - 70	
				QC 21 - FG - 53	

Part Op 100 - -Issue P/O to ARROW TECH MACHINE WORKS ; P/O _____ -Manufacture RB23005022 as per DWG. -
 Descriptions: Certificate of Conformity is required
 110 - Certificate of Conformity is required

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RB23005022P	INR. PWR. TURB. SHFT. MANDREL	1 pcs (1 ea)	100-Purchasing	S 202637

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RB23005022P	1	0	0
Part Specifications				
Specifications could not be found.				

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PURCHASE ORDER POHB043785



Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

Attention: , Ana
(541) 780-6938

Ship To:

PO No: POHB043785

PO Date: 6/19/19

Due Date: 7/29/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	196847	RB6872201P			Prop Flange Puller	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$2,048.20/Ea	\$2,048.20
2	196848	RB6891198P			Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,441.15/Ea	\$1,441.15
3	196849	RB6796966P	RB6796966P		RET. RING, FUEL CTR. DR. PLIER	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$827.00/Ea	\$1,654.00
4	196851	RB6795614P			Puller/Pusher Idler Gear Support Shaft	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$538.00/Ea	\$1,076.00
5	196852	RB6795984P			Power Turbine Holder Shaft	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$721.00/Ea	\$1,442.00
6	196853	RB6872550P			Compressor Rotor Coupler Adapter Holder	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$1,063.00/Ea	\$2,126.00
7	196854	RB23033037P			Holder Compressor Rotor Coupling Adapter	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,408.85/Ea	\$1,408.85
8	196855	RB6798981P			Prop Shaft Splined Adapter	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,207.45/Ea	\$1,207.45
9	196856	RB6795644P			Bearing Nut Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,387.95/Ea	\$1,387.95



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POHB043785



Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
10	196857	RB6795588P			Wrench-Holding, 32/64 Pitch 24 Tooth Spline	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$910.00/Ea	\$1,820.00
							2x AUG 0 2 2019						
11	196858	RB23005022P	RB23005022P		INR. PWR. TURB. SHFT. MANDREL	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$1,645.40/Ea	\$1,645.40
							1x AUG 0 2 2019						
12	196859	RB6795637P			Adapter	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$894.00/Ea	\$1,788.00
							2x JUL 3 0 2019						
13	196860	RB6895528P			Rear Compressor Bearing Pusher	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$772.35/Ea	\$772.35
							1x JUL 3 0 2019						
14	196861	RB6796949P			Accessory Gear Box Bearings Installation Drift	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$292.00/Ea	\$584.00
							2x JUL 3 0 2019						
15	196862	RB6796948P			Drift Install/Removal Accessories Gear Box	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$310.00/Ea	\$620.00
							2x JUL 3 0 2019						
16	196863	RB6872881P	RB6872881P		COMPR MTG INSERT WRENCH	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$327.00/Ea	\$654.00
							2x JUL 3 0 2019						
17	196864	RB6798986P			Prop Shaft Bearing Puller Plate	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$720.10/Ea	\$720.10
							1x JUL 3 0 2019						
18	196866	RB6798983P			Prop Shaft Assembly Drift	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$209.00/Ea	\$209.00
							1x JUL 3 0 2019						
19	196867	RB6796946P			Install & Removal Accessory Gear Box Bearings Drift	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$353.00/Ea	\$706.00
							2x JUL 3 0 2019						
20	196868	RB6795990P			Dummy Bearing Power Turbine Shaft Front	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$304.00/Ea	\$304.00
							1x JUL 3 0 2019						
21	196869	RB6795993P			Joining And Separating, Power	Firmed -		7/29/19	1 Ea	0 Ea	1 Ea	\$389.50/Ea	\$389.50
							1x JUL 3 0 2019						



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PURCHASE ORDER POHB043785



Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
22	196870	RB23034275P		Adapter Pilot Rear Compressor Bearing Puller	Firmed - 1 X		7/29/19 JUL 30 2019	1 Ea	0 Ea	1 Ea	\$340.00/Ea	\$340.00
23	196871	RB6798980P		Shaft Spanner Nut Wrench	Firmed - 1 X		7/29/19 JUL 30 2019	1 Ea	0 Ea	1 Ea	\$1,479.15/Ea	\$1,479.15
24	196872	RB6798845P	PS	Turbine 2Nd Stage Spline Adapter	Firmed - 1 X		7/29/19 JUL 30 2019	1 Ea	0 Ea	1 Ea	\$1,038.35/Ea	\$1,038.35
25	196873	RB6872746P		Puller, Power Train Drive Gear Bearing	Firmed - 2 X		7/29/19 AUG 02 2019	2 Ea	0 Ea	2 Ea	\$1,950.00/Ea	\$3,900.00
26	196874	RB6893361P		Power Turbine Coupling Inner Race Puller	Firmed - 1 X		7/29/19 AUG 02 2019	1 Ea	0 Ea	1 Ea	\$1,071.60/Ea	\$1,071.60
27	196875	RB6872927P	RB6872927P	RED. GEAR FLANGED STUD WRENCH	Firmed - 2 X		7/29/19 JUL 30 2019	2 Ea	0 Ea	2 Ea	\$340.64/Ea	\$681.28
28	196876	RB6872477P		Spanner Power Turbine Coupling Inner Nut Wrench	Firmed - 1 X		7/29/19 JUL 30 2019	1 Ea	0 Ea	1 Ea	\$579.50/Ea	\$579.50
29	196877	RB6872202P		Prop Shaft Support Fixture	Firmed - 1 X		7/29/19 JUL 30 2019	1 Ea	0 Ea	1 Ea	\$503.50/Ea	\$503.50
30	196878	RB6795597P		Spanner Wrench	Firmed -		7/29/19	2 Ea	0 Ea	2 Ea	\$649.00/Ea	\$1,298.00
31	196882	RB6796941P		Seals Replacement, Accessories Gear Box	Firmed - 2 X		7/29/19 JUL 30 2019	2 Ea	0 Ea	2 Ea	\$4,053.00/Ea	\$8,106.00
32	196883	RB6798838P		Gas Producer Turbine Tie Bolt	Firmed - 2 X		8/16/19 AUG 02 2019	2 Ea	0 Ea	2 Ea	\$691.00/Ea	\$1,382.00
33	196884	RB6796918P		Install Turbine & Exh Colct Support Oil Bellows Seal Dft	Firmed -		8/16/19 AUG 02 2019	2 Ea	0 Ea	2 Ea	\$877.00/Ea	\$1,754.00



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Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
34	196885	RB6795594P			Fixture-Assembly, Compressor Rotor	Firmed	-	8/16/19 1 X JUL 3 0 2019	1 Ea	0 Ea	1 Ea	\$1,519.00/Ea	\$1,519.00
35	196886	RB23033029P			Fixture Alignment Compressor Rotor Front	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$3,962.50/Ea	\$3,962.50
36	196887	RB6895995-4P			Fixture-Alignment Compressor Rotor (2 Piece)	Firmed	-	8/16/19 1 X AUG 0 2 2019	1 Ea	0 Ea	1 Ea	\$347.70/Ea	\$347.70
37	196888	RB6887819P			Gas Producer & Power Turbine Supports Bearing Bore Checking Fixt	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$1,711.34/Ea	\$1,711.34
38	196889	RB6872162P			Sump Assembly Pressure Test Fixture	Firmed	-	8/16/19 1 X AUG 0 2 2019	1 Ea	0 Ea	1 Ea	\$928.62/Ea	\$928.62
39	196890	RB6798925P			Gas Producer 2Nd Stage Wheel Locknut Crimper	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$1,410.00/Ea	\$2,820.00
40	196895	RB6872880P			Compressor Mounting Inserts Checking Fixture	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$1,905.00/Ea	\$3,810.00
41	196892	RB6796930P			Accessory Gear Box Install Plate	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$841.00/Ea	\$1,682.00
42	196893	RB23006778P	RB23006778P		GUIDE SPUR ADAPTER GEAR SHAFT	Firmed	-	8/16/19 3 X JUL 3 0 2019	3 Ea	0 Ea	3 Ea	\$427.00/Ea	\$1,281.00
Grand Total:												\$64,199.49	



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Order Notes

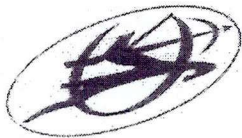
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT

- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 7/30/19 3:41 PM dart.belanger.natasha



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd. Unit C
Eugene, Oregon 97402
Phone: (541) 780-6938
Fax: (458) 215-4938

Packing Slip

NO. 653

Date: 7/31/2019
PO Ref: HB043785
Ship via: Fedex Priority

Bill To:
Dart Aerospace
1270 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K7

Ship To:
Dart Aerospace
1271 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K8

Qty	Item	Part No.
✓1	PROP FLANGE PULLER	✓RB6872201✓
✓2	POWER TURBINE HOLDER SHAFT	✓RB6795984✓
✓2	COMP. ROTOR COUPLER ADAPTER HOLDER	✓RB6872550✓
✓1	HOLDER COMP ROTOR COUPLING ADAPTER	✓RB23033037✓
✓1	BEARING NUT WRENCH	✓RB6795644✓
✓2	WNCH: HOLDING 32/64 PCH 24 TOOTH SPNE	✓RB6795588✓
✓1	INR, PWR, TURB, SHFT, MANDREL	✓RB23005022✓
✓1	PWR TURB COUPLING INNER RACE PULLER	✓RB6893361✓
✓2	PULLER POWER TRAIN-DRIVE GEAR-BEARING	✓RB6872746✓
✓1	SUMP ASSEMBLY PRESSURE TEST FIXTURE	✓RB6872162✓
✓1	FIX. ALIGN. COMP. ROTOR (2 PC)	✓RB6895995-4✓
✓2	GAS PRODUCR TURBINE TIE BOLT	✓RB6798838✓

DAS
61
9-89

F-8128 4801 7372

Received by:

Packaged by: J.T.I.

Checked by: ANP

Thank You

RECEIVED

AUG 01 2019

DART AEROSPACE LTD.



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No: HB043785 ✓ Dated: 7/31/2019

Our Order / Job No: AWT-HB043785 A11 Order Qty: 1 ✓

Part Name: INNER POWER TURBINE SHAFT MANDREL

Part Number RB23005022 ✓

Lot Size: N/A Ship Date: 7/31/2019

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: RB23005022 Rev: A

DAS
31
1-89

Material Size and Type: -1, -2, -3, -4/O1 STEEL; -5, -6, -7/1018 STEEL

Material Specifications: O1 STEEL: ASTM A681; 1018 STEEL: ASTM A108

Heat Treatment: 50.0 – 50.0 HRC

Plating/Finish: BLACK OXIDE: QMSI-6.2.2 B.O. REV D

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 7/31/19

Signed: Henriette Ralst

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com